

Patent  
Attorney Docket No. 74239

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions and listings of claims in the application:

**LISTING OF CLAIMS:**

1. (Previously presented): A method of producing a molecularly-imprinted material, comprising:
  - (a) synthesizing a peptide on a disposable surface modified support to produce a support surface-attached peptide;
  - (b) providing a selected monomer mixture;
  - (c) contacting said monomer mixture with said support surface-attached peptide;
  - (d) initiating polymerisation or at least one crosslinking reaction;
  - (e) dissolving or degrading said support surface-attached peptide and said support; and
  - (f) obtaining said molecularly imprinted material.
2. (Currently amended): A method according to claim 1, wherein said support surface-attached peptide of step (a) ~~(e)~~ is a peptide epitope.
3. (Currently amended): A method according to claim 1, wherein step (d) ~~(f)~~ is conducted with the aid of at least one factor consisting of crosslinking agents, heat, and ultraviolet irradiation.
4. (Currently amended): A method according to claim 1, wherein said peptide comprises at least one amino acid and is selected from the group consisting of FMOC-Phe-Gly-Si, H-Phe-Gly-Si, FMOC-Phe-Si, BOC-Gly-Si, H-Gly-Si, FMOC-Phe-Gly-OH, FMOC-Phe-OH, BOC-Phe-OH, H-Phe-pNA, H-Phe-O-Me, H-Phe-OtBu, BOC-Gly-OH, H-Phe-Gly-NH<sub>2</sub>, H-Phe-Gly-Gly-Phe-OH (SEQ ID NO:1), FMOC-Phe-OH, H-Gly-Phe-OH, and Nociceptin.
5. (Previously presented): A method according to claim 1, wherein said disposable surface modified support is modified silica or controlled pore glass (CPG).

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6. (Original): A method according to claim 1, wherein said monomer mixture comprises monomers selected from the group consisting of styrene/divinyl benzene, methacrylates, acrylates, acrylamides, methacrylamides and combinations thereof.
7. (Withdrawn): A method of using a molecularly-imprinted material, comprising:  
producing a molecularly-imprinted material according to claim 1; and  
using said molecularly-imprinted material as an affinity phase for the separation of biological macromolecules or oligomers.
8. (Withdrawn): A method according to claim 7, wherein said biological macromolecules or oligomers are selected from the group consisting of peptides, polypeptides, oligopeptides, proteins, nucleic acids, oligonucleotides, polynucleotides, saccharides, oligosaccharides, and polysaccharides.
9. (Withdrawn): A chromatographic stationary phase, comprising a molecularly imprinted material produced according to claim 1, wherein said peptide, oligosaccharide or oligonucleotide of step (c) is selected from the group consisting of Fmoc-Phe-Gly-Si, H-Phe-Gly-Si, Fmoc-Phe-Si, BOC-Gly-Si, H-Gly-Si, Fmoc-Phe-Gly-OH, Fmoc-Phe-OH, BOC-Phe-OH, H-Phe-pNA, H-Phe-O-Me, H-Phe-OtBu, BOC-Gly-OH, H-Phe-Gly-NH<sub>2</sub>, H-Phe-Gly-Gly-Phe-OH, Fmoc-Phe-OH, and H-Gly-Phe-OH, and Nociceptin.